



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,470	01/05/2001	Steven Branigan		4994

27997 7590 06/07/2004

PRIEST & GOLDSTEIN PLLC  
5015 SOUTHPARK DRIVE  
SUITE 230  
DURHAM, NC 27713-7736

EXAMINER

TRAN, ELLEN C

ART UNIT PAPER NUMBER

2134

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/755,470

Applicant(s)

BRANIGAN ET AL.

Examiner

Ellen C Tran

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.


## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
NORMAN M. WRIGHT  
PRIMARY EXAMINER

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***DETAILED ACTION***

1. This action is responsive to communication: original application filed  
05 January 2001.

2. Claims 1-15 are currently pending in this application. Claims 1, 7, and 10 are  
independent claims.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all  
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordman  
U.S. Patent No. 6,061,346 (hereinafter '346) in further view of Bell U.S. Patent No. 6,707,914,  
(hereinafter '914).

**As to independent claim 10, “A method of secure communication between wireless network clients and a wired network, comprising the steps of: establishing a connection between an SB server connected to the wired network and a wireless network access point; establishing a connection between the SB server and a network client communicating with the SB server through the wireless network access point” and “performing authentication for the wireless network client; if authentication fails, rejecting connection to the wired network; and if authentication passes, accepting connection to the wired network, providing a temporary wired network address” is taught in '346 col. 4, lines 3-22 “When the**

Art Unit: 2134

wireless host requests access to the private IP network, communications are first authenticated at the wireless access network formed of network infrastructure of the PLMN. An authentication procedure is performed to confirm that communication are permitted ... The private IP network permits access to the wireless host if the wireless host identity provided thereto corresponds ... An IP address is allocated to the wireless host by the private IP network”;

the following is not taught in ‘346 **“exchanging encryption keys between the SB server and the wireless network client”**; and **“a unique session encryption key to the wireless network client and providing access to wired network resources in response to requests by the wireless network client”** however ‘914 teaches “in a communications system, two or more end stations coupled to a network participate in a communication session with one another using the network .... The end station receives a session key col. 1, line 58 through col. 2, line 2.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify a method for accessing private IP networks with wireless devices taught in ‘346 to include a means for session key exchange. One of ordinary skill in the art would have been motivated to perform such a modification because with the growth technological advances a desired level of privacy is needed see ‘914 (col. 1, lines 25 seq.) “As the communications industry continues to dominate the growth of the global economy, providing a desired level of privacy for network users which also satisfying performance, flexibility, regulatory, and other requirements has become increasingly important”.

As to dependent claim 11, **“wherein tree step of rejecting connection to the wired network is accompanied by a step of logging the rejection and wherein the step of accepting the connection is accompanied by a step of logging the acceptance”** is taught in ‘914 col. 14,

Art Unit: 2134

lines 22-26 "If the described authentication sequence fails, report of the failure is sent to the last known good key manager 14".

**As to dependent claim 12, "wherein the step of providing a temporary wired network address to the wireless network client includes using dynamic host control protocol to provide the address"** is taught in '346 col. 9, lines 38-49 "FIG. 3 illustrates a logical model of the private IP network 14, formed of an HIPN, shown ... including the following: a DHCP (Dynamic Host Configuration Profile) service".

**As to dependent claim 13, "wherein communication between the wireless network client and the wired network server is performed using point to point tunneling protocol"** is shown in '346 col. 4, lines 40-45 "IP tunneling is used between the PLMN and the private IP network. The IP tunnel can be secured by either by an authentication process or by arranging for secure transmission by arrangements between operators"

**As to dependent claim 14, "wherein the step of performing authentication for the wireless network client includes transferring authentication information between the wireless network client and the SB server and wherein the authentication information is encrypted using public key cryptography"** is disclosed in '914 col. 4, lines 20-33 "In one embodiment, database 32 also contains the following four keys used in connection with specified operations of end station 16, without limitation: (1) a current master configuration public key 38 of a current master configuration public/private key set, (2) an end station private key 40 of an end station public/private key set, (3) a current master sequence key 42, and (4) a universal override key 44 ... The present invention contemplates any suitable keys for any suitable purposes to support the operation of system 8 and its components".

Art Unit: 2134

**As to dependent claim 15, “wherein the step of providing a unique session encryption key includes encrypting the unique session encryption key using public key cryptography”** is taught in ‘914 col. 4, lines 20-33.

**As to independent claims 1 and 7,** these claim are directed to the wired network of the method of claim 10 and are rejected along similar rationale.

**As to dependent claim 2, “and also including a network hub providing connections between the server and additional resources on the wired network”** is taught in ‘346 col. 9, lines 38-59 “FIG. 3 illustrates a logical model of the private IP network 14, formed of an HIPN, shown previously in FIGS. 1 and 2 a user environment including the following: ... a news service, a mail service, a log-in service, ... other application servers, connection to an Internet”.

**As to dependent claim 3, “and also including a router providing connections between the server and additional resources on the wired network as well as a connection to an additional wired network”** is shown in ‘346 col. 9, lines 38-59.

**As to dependent claim 4, “wherein the server is operative to provide addresses to clients through dynamic host control protocol”** is disclosed in ‘346 col. 9, lines 38-59

**As to dependent claim 5 and 8,** these claims are substantially similar to dependent claim 13 and are rejected along the same rationale.

**As to dependent claim 6, “wherein the server employs 128-bit cryptoprocessing to communicate with the wireless network client”** is taught in ‘914 col. 7, lines 41-43 “Although 31 bit LFSR 50a and 30 bit LFSR 50b are described, the present invention contemplates LFSRs 50 of any suitable lengths according to particular needs”.

Art Unit: 2134

As to dependent claim 9, this claim is substantially similar to dependent claim 2 and is rejected along the same rationale.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Diffie et al.                      U.S. Patent No. 5,371,794      issued dated: Dec. 06, 1994

Liao et al.                      U.S. Patent No. 6,148,405      issued dated: Nov. 14, 2000

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen C Tran whose telephone number is (703) 305-8917. The examiner can normally be reached on 6:30 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A Morse can be reached on (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5484.

Ellen Tran,  
Patent Examiner  
Technology Center 2134  
25 May 2004

  
NORMAN M. WRIGHT  
PRIMARY EXAMINER